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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,513	10/03/2003	Werner Juengling	MI22-2391	1971
21567	7590	06/05/2007		
WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			EXAMINER KEBEDE, BROOK	
			ART UNIT 2823	PAPER NUMBER
			MAIL DATE 06/05/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/678,513	Applicant(s) JUENGLING, WERNER	
	Examiner Brook Kebede	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-79 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 40-70 and 72-76 is/are allowed.
- 6) ☒ Claim(s) 71 and 77-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. The Examiner, due to inconsistency of the previous Office action, has withdrawn the Office action that was mailed on January 29, 2007. Accordingly, a new final Office action set forth herein below.

Claim Objections

2. Claims 49, 71, and 77-79 are objected to because of the following informalities:

Claim 48 recites the limitation “etching a doping window opening over a substrate” lines 6-7. The recited claim lacks clarity for the following reason:

The doping window opening is formed by etching the material. It is not clear how the opening itself can be etched.

Applicant also requested to review the limitations in claims 71 and 77 for the same issue as set forth above.

Claim 78 recites the limitation “wherein providing comprises performing gas diffusion” in lines 1-2.

However, recited limitation is incomplete sentence because of the following reason: “providing” what ? It is not clear what “providing” entails unless another thing will also occur or be done.

Claim 79 is also objected for the same reason.

Applicant’s cooperation is requested in reviewing the claims structure to ensure proper claim construction and to correct any subsequently discovered instances of claim language noncompliance. See *Morton International Inc.*, 28USPQ2d 1190, 1195 (CAFC, 1993).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claim 71 is rejected under 35 U.S.C. 102(e) as being anticipated by Jeng et al. (US/5,994,228).**

Re claim 71, Jeng et al. disclose a semiconductor processing method comprising: forming a conductive line (not labeled) over a substrate (100), the conductive line having a conductive portion (117 119) and silicon nitride (121) material over the conductive portion, and silicon oxide material (131) over the silicon nitride material (121); forming encapsulation material (132 133) over the conductive line; in a common masking step (140) (see Fig. 3d), etching a doping window opening (170) over a substrate (100) active area adjacent the conductive line and removing at least some of the encapsulation material (130 135) over the conductive line and some of the silicon nitride material (121) over the conductive portion of the conductive line (see Figs. 3e and 3f) to form a contact opening to the conductive line (160) ; and wherein the encapsulation material comprises nitride material (see Figs. 3a – 3f and related text in Col. 5, line 25 – Col. 6, line 67).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 77-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeng et al. (US/5,994,228) in view of Dennison (US 5,637,525).**

Re claims 77-79, Jeng et al. disclose a semiconductor processing method comprising: forming a conductive line (117 119) (i.e., polysilicon gate line) over a substrate (100), the conductive line (117) having a conductive portion (see Fig. 3) and silicon nitride material (121) over the conductive portion (117), and silicon oxide material (131) over the silicon nitride material (131) (see Fig. 3b) forming encapsulation material (132 133) over the conductive line (117); and in a common masking step (140) (see Fig. 3d), forming a doping window opening (170) over a substrate (100) active area adjacent the conductive line (117) and removing at least some of the encapsulation material (130) over the conductive line (117 119) and some of the silicon nitride material (121) over the conductive portion (117 119) of the conductive line (117) to form contact opening (160) to the conductive line (see Figs. 3a – 3f; and related text in Col. 5, line 25 – Col. 6, line 67).

However, Jeng et al. do not disclose providing a dopant impurity through the doping window opening into the substrate active area.

Dennison discloses method of field effect transistors the method includes forming of contact windows in over conductive lines and active regions of the substrate (see Fig. 4) and

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providing dopant comprises p-type as well as n-type and diffuse the dopant into the conductive line and over the substrate via the contact windows in order to increase the dopant level in the predetermined regions of PMOS and NMOS transistors (see Dennison Abstract, Figs. 1-11).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to provide Jeng et al. reference with providing dopant comprises p-type as well as n-type and diffuse the dopant into the conductive line and over the substrate via the contact windows as taught by Dennison in order to increase the dopant level in the predetermined regions of PMOS and NMOS transistors.

Allowable Subject Matter

7. Claims 40-70 and 72-76 allowed over prior art of record.

Response to Arguments

8. Applicant's arguments with respect to claims 71 and 77 –79 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendment filed on October 26, 2006.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brook Kebede whose telephone number is (571) 272-1862. The examiner can normally be reached on 8-5 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brook Kebede/
Primary Examiner, Art Unit 2823

/BK/
May 28, 2007


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